MEDICINE TODAY

Current comment on medical progress, discussion of selected topics from recent books or periodic literature, by contributing members.

Dermatology

Trauma as Localizer of Systemic Dermatoses.—The above caption may sound technical, but it bears directly on a very important and common clinical problem.

Trauma has always been recognized as an important etiologic factor in producing local lesions. For instance, the stimulating effect of local traumatization on the causation of benign and malignant growths is a well-known fact.

Also the facility of production and inoculation of local infection through superficial traumatization of the skin, such as scratches and abrasion, is one of the oldest empirical observations now integrated into bacteriologic inoculation technique.

That the local infection so engrafted may become systemic and generalized is well known, but what seems to be not sufficiently known to the general profession is the fact that the pathogenic *modus operandi* may proceed in the reverse order and that the latent systemic infection or toxemia may break out on the surface in the regions submitted to local traumatization.

This clinical phenomenon not uncommonly gives rise to diagnostic errors because of the prevailing tendency to overemphasize the diagnostic significance of clinical history at the expense of diagnostic possibilities suggested by the objective examination of skin lesions.

In these cases the history of preceding trauma stands out so prominently, and the localization of the lesions limited to the traumatized regions easily misleads the unaware practitioner in a diagnosis of dermatosis of local traumatic origin, particularly so if the laboratory report happens to be negative.

A case strikingly illustrating the point under discussion has been recently observed by the writer.

A woman, fifty-three years of age, was referred for diagnosis of a peculiar, disfiguring skin eruption of strictly symmetrical distribution involving the circumoral region and both nasolabial spaces. The patient gave a history of four successive operations in a year's time, necessitating several hours of anesthetics. The striking feature of the case was that the eruption was strictly limited to the parts covered by the anesthetic cone. To complicate matters, the eruption, according to the patient's statement, developed shortly after the last administration of the anesthetic.

A seemingly plausible diagnosis of a dermatitis due to an external irritation was made by the attending surgeon. After the eruption failed to clear up in seven weeks under local bland applications, the patient was referred for diagnosis.

In spite of the traumatic history and localization, the morphologic study of the skin lesions detected features suggestive of an infectious granuloma, such as dusky red color, soft smooth surface, serpiginous border, multiple discrete nodules, etc.

Latent syphilis was suspected, and in spite of the negative Wassermann test the patient was put on the specific treatment of intramuscular mercurial injections and potassium iodid. In four weeks' time the eruption cleared up beyond recognition.

The clinical lesson of the case is: The latent syphilitic infection was not sufficiently virulent to break through the threshold of latency, and it required a stimulus of local traumatization and irritation to precipitate the breaking out on the surface of the localized cutaneous syphilid.

A brilliant experimental demonstration of the above enunciated clinical principle was recently published by Fried and Segal[1] of Moscow, Russia, who have produced the following experiments: In rabbits, an area of skin from ten to fifteen centimeters in diameter was shaved or clipped and subsequently scarified with sand paper. From 2 to 5 cubic centimeters of an emulsion of trichophyton gypseum was then injected intravenously into the animals. Of the twenty-nine animals used in the experiments, eleven, or 38 per cent, developed cutaneous lesions confined to the shaved and scarified areas only.

The confinement of the lesions to the skin in these experiments, in their opinion, is due to the trauma of the wall of the papillary capillaries, which permits the parasite to migrate into the skin, where it manifests its pathogenic properties.

The clinical principle enunciated above is of great practical importance in industrial medicine. Not uncommonly a patient with a skin eruption, localized on the parts exposed to occupational irritants, is refused a claim for compensation, and dermatosis is declared non-occupational because it proved to be of systemic origin.

Keeping in mind the potentiality of trauma as localizer of systemic dermatoses would contribute much toward a correct interpretation and just solution of these cases.

These cases should be considered compensational because the occupational irritant serves as an actual and, at times, the sole factor in breaking down the systemic resistance, causing the latent systemic condition to break through the threshold of latency and localizing it on the parts exposed to occupational irritants.

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REFERENCE

1. Fried and Segal: Arch. Dermat. and Syph., January 1929.